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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOLFGANG RUF, KONSTANTIN FENKL, and HANS LOSER

Appeal 2007-4124
Application 10/072,876
Technology Center 1700

Decided: May 29, 2008

Before EDWARD C. KIMLIN, TERRY J. OWENS and JEFFREY T. SMITH, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal from a rejection of claims 1-53, which are all of the pending claims.

THE INVENTION

The Appellants claim a lamella and a headbox containing the lamella. Claim 1 is illustrative:

> 1. A lamella of a headbox through which at least one fibrous suspension flows, the headbox having a machine-width headbox nozzle with a nozzle length and an exit opening, and the headbox nozzle being delimited by an upper nozzle wall and a lower nozzle wall, said lamella, which is structured and arranged to be mounted within the headbox nozzle, comprising:
>
> a lamella body having a downstream lamella end structured and arranged to be positioned downstream, relative to a suspension flow direction, of an opposite end of said lamella body; and
>
> said downstream lamella end comprising a first surface, a portion coupled to and sloped relative to said first surface, and a second surface located opposite said first surface, provided with a structured end adjacent said sloped portion and having at least one structure integrally formed in or on said second surface.

THE REFERENCES

Sanford	US 4,941,950	Jul. 17, 1990
Ruf	US 5,645,689	Jul. 8, 1997

THE REJECTIONS

The claims stand rejected as follows: claims 1-53 under 35 U.S.C. § 112, first paragraph, written description requirement; claims 1-3, 11, 15, 17-23, 31, 35, 37-42, 44 and 48-50 under 35 U.S.C. § 102(b) over Ruff; claims 4-10, 13, 14, 16,

24-30, 33, 34, 36, 43 and 45-47 under 35 U.S.C. § 103 over Ruf; and claims 12, 32, 46 and 51-53 under 35 U.S.C. § 103 over Ruf in view of Sanford.[1]

OPINION

We reverse the rejection under 35 U.S.C. § 112, first paragraph, and affirm the rejections under 35 U.S.C. §§ 102(b) and 103. Regarding the rejection under 35 U.S.C. § 102(b) and the rejection under 35 U.S.C. § 103 over Ruf we need to address only the independent claims, i.e., claims 1, 22 and 44. The Appellants point out the difference in what the dependent claims cover (Br. 16-47), but that is not a substantive argument as to the separate patentablilty of those claims. *See* 37 C.F.R. § 41.37(c)(1)(vii)(2007).

Rejection under 35 U.S.C. § 112, first paragraph

A specification complies with the 35 U.S.C. § 112, first paragraph, written description requirement if it conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the invention. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991); *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

The Examiner argues that the Appellants' original disclosure does not provide adequate written descriptive support for "integrally formed" in the Appellants' independent claims (1, 22 and 44) (Ans. 3-4, 6-7).

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[1] A rejection of claims 1-53 under 35 U.S.C. § 112, second paragraph, is withdrawn in the Examiner's Answer (Ans. 3).

The Appellants argue that "integral" means "a complete unit, a whole", and that the Appellants' figures 3a and 3b show that the lamella and structures are formed as one piece (Br. 11-12).

The Appellants' figure 3a shows "a longitudinal section of a downstream lamella end of a lamella" (Spec. ¶ 0050), and figure 3b shows "plan views of structural end areas of lamellae" (Spec. ¶ 0051). The Appellants' Specification states that in figure 3a, item 11.1 is the lamella end and item 22 is a grooved structure (Spec. ¶ 0064). Figures 3a and 3b, however, do not indicate that lamella end 11.1 and grooved structure 22 are one piece.

The Appellants argue that in the statement in the Appellants' Specification that "structured lamella end 11.1 may be embodied or formed with a grooved structure 22" (Spec. ¶ 0064), "formed with" indicates that lamella end 11.1 and grooved structure 22 are integrally formed (Br. 12-13; Reply Br. 2).

The meanings of "integral" include "essential to completeness: CONSTITUENT", "formed as a unit with another part", and "composed of integral parts: INTEGRATED", where the meanings of "integrated" include "to form or blend into a whole: UNITE", "to unite with something else", and "to incorporate into a larger unit".[2] The relevant meaning of "embody" is "to cause to become a

[2] *Webster's New Collegiate Dictionary* 600 (G. & C. Merriam 1973).

body or part of a body: INCORPORATE",[3] and the relevant meanings of "form" are "come into existence: ARISE", and "to take on a definite form, shape, or arrangement".[4]

Thus, the Appellants' disclosure that structured lamella end 11.1 may be embodied or formed with a grooved structure 22 (Spec. ¶ 0064) indicates possession of an invention wherein lamella end 11.1 and grooved structure 22 are incorporated as body having a definite shape or arrangement. In that body, lamella end 11.1 and grooved structure 22 would be a united or incorporated as a whole and, therefore, would be integral.

The Examiner questions what structures in the Appellants' figures 3a and 3b are integrally formed (Ans. 3-4).

The integrally formed structures are those recited in the Appellants' independent claims 1, 22 and 44, i.e., the second surface and the structure on its structured end.

The Examiner argues that the broadest reasonable interpretation of "integral" includes "essential part of the device" (Ans. 7).

As set forth above, the definitions of "integral" include "essential to completeness: CONSTITUENT". If the Appellants' structure on the second surface's structured end is an essential part of the device it is integral and, accordingly, the Appellants' original disclosure provides adequate written

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[3] *Webster's*, *supra* note 2 at 371.
[4] *Webster's*, *supra* note 2 at 452.

descriptive support for the recited integrally formed second surface and structure on its structured end.

We therefore reverse the rejection under 35 U.S.C. § 112, first paragraph.

Rejections under 35 U.S.C. §§ 102(b) and 103 over Ruf

Ruf discloses, in figure 7, a headbox nozzle comprising a lamella having a downstream end comprising a first surface (horizontal upper surface portion), a portion coupled to and sloped relative to the first surface (sloped upper tip portion), and a second surface (lower surface 8.7) located opposite the first surface and provided with a structured end (upwardly sloping tip portion) that is adjacent to the sloped upper tip portion and has a structure (hard outer layer 9.7) on its surface that is integrated into the body of the lamella (col. 2, ll. 28-34, 55-56; col. 4, ll. 30-37). As set forth above in the discussion of the rejection under 35 U.S.C. § 112, first paragraph, the meanings of "integral" include "integrated". Hence, Ruf's integrated structure 9.7 is integrally formed on the second surface.

The Appellants argue that if "integral" means "an essential part of the device" it would be redundant because each claim feature is important to the particular embodiment it defines (Reply Br. 3-4).

That argument is not persuasive because the Appellants have not established that their claims cannot contain redundant language.

The Appellants argue that Ruf's hard outer layer 9.7 (fig. 7) is not a structure because it is added to the lamella, not integrally formed with the lamella surface (Br. 15-16, 21-22, 26-27; Reply Br. 4-5).

As pointed out above, the meanings of "integral" include "integrated". Therefore, Ruf's integrated hard outer layer 9.7 (col. 2, ll. 28-34; col. 4, ll. 30-37) is integral with the lamella surface.

For the above reasons we are not persuaded of reversible error in the rejections under 35 U.S.C. §§ 102(b) and 103 over Ruf.

Rejection under 35 U.S.C. § 103
over Ruf in view of Sanford

Sanford discloses a headbox comprising a trailing element device (14) including a slice chamber (18) having at least one rectangular sheet (22) with parallel spaced grooves (42-45, 46-49) in its upper and lower surfaces (28, 30), for inhibiting machine direction vortices along the surfaces (abstract; col. 6, ll. 44-51). The grooves may be formed by 1) machining the sheet, 2) molding the sheet such that the grooves are integrally formed with the sheet, 3) extruding the sheet with the grooves formed therein, 4) etching the grooves into the sheet, or 5) pressing a heated dye against the sheet to form grooves therein (col. 4, ll. 20-33; col. 7, ll. 20-25).

The Appellants argue that one of ordinary skill in the art would not have included Sanford's grooves in Ruf's tip surfaces because Ruf teaches that the tip surfaces should be as exactly straight lined as possible (col. 4, ll. 16-23) (Br. 29-30; Reply Br. 5-6).

Ruf uses a sharp, knife-like edge, rather than a blunt edge, to avoid separation of turbulences at the tip that cause mixing of neighboring pulp streams (col. 1, ll. 41-53). Thus, Ruf indicates that it is the lack of bluntness, not a lack of grooves, that provides the desired avoidance of turbulences. Sanford teaches that grooves also inhibit turbulence (i.e., vortices) (abstract; col. 6, ll. 44-51). Hence, Ruf and Sanford would have led one of ordinary skill in the art, through no more than ordinary creativity, to include Sanford's grooves on Ruf's sharp knife-like edge to provide additional inhibition of turbulence. As stated by the Supreme Court in *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007), "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill."

Hence, we are not convinced of reversible error in the rejection under 35 U.S.C. § 103 over Ruf in view of Sanford.

DECISION

The rejection of claims 1-53 under 35 U.S.C. § 112, first paragraph, written description requirement, is reversed. The rejections of claims 1-3, 11, 15, 17-23, 31, 35, 37-42, 44 and 48-50 under 35 U.S.C. § 102(b) over Ruff, claims 4-10, 13, 14, 16, 24-30, 33, 34, 36, 43 and 45-47 under 35 U.S.C. § 103 over Ruf, and claims 12, 32, 46 and 51-53 under 35 U.S.C. § 103 over Ruf in view of Sanford are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

jlb

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